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SE-5J

February 9, 1998

Mr. David J. Reynolds
Environmental Coordinator
Department of the Environment
Twenty-fifth Floor
30 N. LaSalle Street
Chicago, Illinois 60602-2575

Dear Mr. Reynolds:

This letter responds to your correspondence to Larry Jensen dated August 11, 1997, regarding the Lindsay Light II Site, Residual Contaminated Material in the City of Chicago Right of Way and the ensuing discussions between our agencies regarding these matters during October, November and December 1997. If we have misunderstood or mischaracterized any conversation, please let us know. We remain concerned that there may not be any effective long-term means of ensuring that anyone who may encounter the remaining radioactive material beneath the streets adjacent to the site will have notice of its presence and will be required to take appropriate precautions. Unless this concern can be diminished, this Agency believes that removal of the material is the most prudent course of action. As stated below in response to Question 6, the City of Chicago, U.S. EPA, Kerr-McGee, MCL Companies, and affected utilities should meet to discuss the matter prior to the finalization of plans for development of the Lindsay Light II property.

Questions 1, 3. Legal Description.

It was agreed that either MCL Companies or Kerr-McGee could provide the legal description for the right of way. Bear in mind, however, that notwithstanding the legal description, Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) defines a "facility" as ". . . any site or area where a hazardous substance has been deposited, stored, disposed of, or placed, or otherwise come to be located . . . ." See CERCLA, 42 U.S.C. §101 (9).

Question 2. Remediation Efforts to Date.

Pursuant to an Administrative Order on Consent executed on January 27, 1994, Chicago Dock & Trust agreed to study the extent of subsurface radiation and radionuclide content before undertaking development of the property that had been a paved parking lot since approximately 1950. Following that investigation, on June 6, 1996, U.S. EPA issued a

Unilateral Administrative Order (Unilateral Order) that required Chicago Dock and Trust and the Kerr-McGee Chemical Corporation, to remove contamination until the criterion of 5 picocuries per gram total radium (radium-226 + radium 228) over background was achieved. All excavations were to be backfilled with suitable material. Pursuant to the unilateral order, as of July 1997, more than 24, 000 tons of material were shipped from the site to a RCRA/CERCLA/IDNS-approved disposal facility. These excavated areas were backfilled as required.

The Unilateral Order also required the respondents to conduct off-site surveying and sampling and implement the standards of 40 C.F.R. 192, if deemed necessary beyond the current site boundaries. Data submitted to U.S. EPA by Kerr-McGee indicated radioactive contamination present in a portion of the Illinois Street right-of-way and under the Columbus Drive. This remaining contamination may not warrant further removal action at this time provided that the City of Chicago agrees to leave the material in place, and provided there are effective means to ensure that health and safety precautions can be implemented to protect any person who may operate in the Illinois Street right-of-way or under the Columbus Drive right-of-way and sidewalk. (Note that there may be subsurface contamination under the other adjacent streets that was not detected from the surface because it was shielded by concrete and soil. Radiation surveillance should be conducted before and during excavation under Grand Avenue or McClurg Court to ensure that if deeper contaminated material is encountered or excavated, workers will be protected and it will be managed and disposed of in accordance with state and federal requirements.)

Question 3. Description of the rights-of-way where residual contaminated material is present.

During the June 26, 1997 meeting among U.S. EPA, the City of Chicago, The Chicago Dock and Trust and Kerr-McGee, Kerr-McGee provided the City of Chicago with a data package for the Illinois Street right-of-way contamination. A similar data package which contained a metered, grid map depicting the area of elevated gamma sampling data under the Columbus Drive right-of-way and sidewalk was attached to the letter dated July 14, 1997, from J.D. White, Kerr-McGee Chemical Corporation to David Reynolds and Joseph Schuessler of the City of Chicago, Department of the Environment. U.S. EPA has no additional sampling information or volume estimates.

Question 4. Description of the location of residual contaminated material.

The development plans for the site as described during a meeting on September 10, 1997 among U.S. EPA, Kerr-McGee, Chicago Dock and Trust and MCL Companies included excavation for an underground parking facility. The excavation for the parking facility

would remove the remaining underground contamination on the site proper. Initially, MCL Companies may have planned to excavate under Illinois Street but we have since learned that MCL Companies now plan to extend into Grand Avenue instead of Illinois Street to avoid a contaminated limestone wall and multiple utilities adjacent to it. According to the latest information that we have received (recognizing that the design may yet be subject to change) residual contamination will remain along the Illinois Street right-of-way and the Columbus Drive right-of-way and sidewalk. Also, although there is no present data to indicate that contamination exists under Grand Avenue or McClurg Court, it is not possible to rule this out due to the shielding effects of overburden that may make the radiation undetectable from the surface. Any plans to excavate near Grand Avenue or McClurg Court should include radiation surveillance before and during excavations.

During the site cleanup groundwater was encountered and tested for radioactivity. As the attached sampling results indicate these levels did not present a potential threat to human health or the environment (Attachment 1). It is expected that if a multi-storey underground parking facility is built at this location, groundwater will need to be continuously pumped and discharged. Due to the potential presence of nonradioactive contaminants from the Site, this groundwater should also be sampled. Several other nearby buildings are believed to be continuously pumping groundwater from their underground levels and discharging to the Metropolitan Water Reclamation District. You have offered to obtain Departments of Transportation or Underground or Water Reclamation District maps of storm sewers in the vicinity and information regarding any sampling or permits that the Water Reclamation District requires of a building which discharges groundwater to the storm sewers. We look forward to reviewing these maps as they will be helpful to our understanding of the utilities in the area.

Questions 5, 6. The appropriateness of leaving contaminated material in place from regulatory and health and safety perspectives.

It is difficult to discuss the regulatory and health and safety perspectives separately. These materials are known carcinogens. The regulations set forth in 40 C.F.R. 192.10-22 and 40 C.F.R. 192.40-43 establish cleanup criteria and standards that apply to the remedial actions at the Lindsay Light site. For properties contaminated with thorium or uranium processing residues, these standards establish limits for the gamma radiation level and the annual average radon decay product concentration in any occupied or habitable building and for the concentration of total radium in soil on open lands. Because the standards in 40 C.F.R. Part 192 do not directly address the gamma exposure rate for outdoor contaminated areas, the relevant and appropriate standard is 40 C.F.R. 192.12(a)(1) that specifies the maximum allowable radium concentration 5 picocuries per gram (pCi/g) above the background level in near-surface soil. The near-surface soil

standard was developed based upon health considerations and U.S. EPA considers it appropriate to certain subsurface cleanups, as well, where the contamination is diffuse as it is at the Lindsay Light II site. The subsurface standard of 15pCi/g set forth at 40 C.F.R. 192.12(a)(2) was developed as a tool for locating large, discrete deposits and was not based upon human health considerations.

Question 7. A plan for managing contaminated material if encountered during the future.

It is U.S. EPA's view that as long as the contaminated material remains along the Columbus Drive sidewalk and right-of-way, under Illinois Street, and, possibly under Grand Avenue and McClurg Court, it is critical to ensure that anyone who may encounter the material receives notice and take appropriate precautions. Of course, if the materials are disturbed, they must be managed in accordance with state and federal regulations and disposed of at a RCRA/CERCLA approved disposal facility. We have enclosed the health and safety plan from the Lindsay II site for your information (Attachment 2). This health and safety plan may be but a starting point for anyone encountering the residual contamination, however, because unlike the trained and monitored radiation personnel who worked on the Lindsay II parking lot removal, utility workers, city workers or others who might operate in these areas, may not have received mandated Occupational Safety and Health Administration hazardous materials training. Those workers could potentially enter contaminated areas unknowingly, unmonitored and without proper regard for the necessity for controlled disposal of these contaminants.

The excerpts from the City of Chicago ordinance entitled "Work on and Under Public Ways" that you provided indicate that a permit or approval from the City's Department of Transportation must be obtained prior to digging or removing material from any public way, installing any conducting device underground, or laying pipe, wires, conduit or tunneling. As you explained during our October meeting, the Department of Environment could place a notice in the Department of Transportation computer files which require the approval of the Department of Environment before any permit or approval could be obtained from the Department of Transportation or Underground. U.S. EPA believes that such notice is necessary and should be instituted. A similar mechanism should also be implemented that provides notice to City of Chicago departments that may dispatch employees to work in contaminated or potentially contaminated areas.

The relatively small fines for violation of the City ordinances, however, may not adequately deter potential violators. In addition to the Departments of Transportation and Underground notices, it may also be appropriate for U.S. EPA to issue an administrative order pursuant to CERCLA § 106 to restrict use of or access to the property as necessary to protect human health and the environment. A copy of such an order that was issued at

the Ottawa, Illinois Radiation Site is enclosed for your review (Attachment 3). Nonetheless, the half-life of the contaminant far exceeds the life of any such order and although the need to protect workers will not diminish over the decades, it may be impractical to expect that later generations will be cognizant of the existence and import of such an order. U.S. EPA also encourages Kerr-McGee and the City of Chicago to consider the potential future costs associated with managing the remaining contaminated material (including the additional costs if it is mismanaged by mistake) and determine if removal of the materials during redevelopment might be more cost-effective. For these reasons, we believe it is preferable to remove the residual contamination during the next phase of development at the Site.

This agency looks forward to continuing working with the City of Chicago to properly address any radioactive contamination remaining beneath the Illinois Street right-of-way and the Columbus Drive sidewalk and to ensure that any Grand Avenue or McClurg Court excavations are adequately monitored. This point in time, prior to development of the Lindsay Light II property, may offer the best opportunity to work through these issues with the City of Chicago, Kerr-McGee, MCL Companies, and the affected utilities. We would like to schedule a meeting with all of these parties together within the next thirty days to discuss these matters. Please call to discuss this plan further and to schedule the meeting.

Sincerely,

Verneta Simon
Fred Micke
On-Scene Coordinators

enclosures

Attachment 1-Lindsay Light II groundwater sampling results.
Attachment 2-Lindsay Light II Health and Safety Plan.
Attachment 3-CERCLA§ 106 sample order restricting access and use of property.

cc: Mort Ames w/enclosures
Mary L. Fulghum w/o enc.
Jose DeLeon w/o enc.
Larry Jensen w/o enc.

SIGN-OFF FOR THE OFFICE OF REGIONAL COUNSEL									
	Atty/ Auth.	Sec. Secy.	Sec. Chief	Br. Secy.	Branch Chief	RC/DRC Secy.	DRC	RC	Other
Init.		RP							DS
Date		2-9-98							2/10/98

MARY FULGHUM/rp:886-4683 (C-14J):LTR to Mr. David J. Reynolds, Environmental Coordinator, Department of the Environment, City of Chicago, from: Verneta Simon & Fred Micke, On-Scene Coordinators, **RE:** the Lindsay Light II Site, Residual Contaminated Material in the City of Chicago Right of Way: Feb. 9, 1998